

have of charming their prey, as all the wiles of this snake had no effect upon the gopher.

HERMAN HAUPT, JR.,
South Haven, Michigan.

THE MINK FROG, *RANA SEPTENTRIONALIS* BAIRD, IN ONTARIO.

Mr. P. H. Pope's note on the distribution of the mink frog in Maine,* recalls some of my experiences with this species while stationed at Prof. C. V. P. Young's boys' camp on Otter Lake, Dorset, Ontario, in the summer of 1913.

On July 7, in a peaty lake with clear sphagnaceous border we found several *Rana septentrionalis*. From July 7-14, we heard at night along the shore of Otter Lake the peculiar note which later proved the croak of the mink frog. On the 15th of July at 10 P. M. we heard several frogs and started with flashlight for the Peat Lake where the species was in chorus. The air temperature ranged from 52° to 55° F., but the water of Otter Lake at its surface registered 69° F.

On July 16th and 17th, we examined the place closely. All along the north edge of the lake were white water lilies, yellow spatterdocks and water shields. These three made a perfect carpet on the water's surface. On these plants during the day the mink frogs rested. Whenever the sun went under a cloud or it became overcast they would croak. The water was about two feet deep. By pushing our canoe through the water plants toward the frogs, one person could place a landing net in front of the quarry while the other with the paddle could gently cause the frog to leap into the net. In this way we caught 15 specimens. Often the frogs would jump along on the lily pads, sometimes for considerable distance; seldom, if ever, did they give a cry like frightened young bullfrogs. Another favorite position was resting be-

*COPEIA, Mar. 15, 1915, No. 16.

tween the overlapping lily pads with just the head protruding, while in the center of the pond where there were only isolated plants, the frogs disappeared before we saw them, the "wake" near a lily pad indicating their former presence.

In the outlet to Otter Lake (Ten Mile Creek between Lake of Bays and Otter Lake) we found them common, July 24, on muddy bottoms where water lilies were abundant. In the same kind of situation they occurred on Porridge Lake, July 28. Another habitat we discovered August 31 was a beaver lake where Cassandra and all the associated heath-like plants grew. Finally, on Fletcher Lake, September 1, we found them in the shallow, sandy shores amongst pipeworts (*Ericaulon articulatum*).

After July 15th and 16th we heard no more choruses. On the latter date we captured one or two frogs with the stump of the tail remaining. These were about 38 mm. (1½ inches) from snout to vent, or little below the two largest individuals taken (49 mm. or 2 inches). The other specimens which were not lost measured 47, 42, 42, 43, 40, 40 mm. respectively. None of these eight specimens had fully developed eggs, though one female surely would have bred the following year. The middle of July, when the chorus was recorded, accords well with Garnier's observed season of breeding for this species, but we had small opportunity to determine if it obtained at Otter Lake.

This species cannot be called solely a river species; it has a "chant amour" which at chorus season can be heard one-third to one-half of a mile away; the name "mink frog" seems very apropos for this species, at least for Ontario specimens; the tadpoles remain at least one winter in this stage and transform at a size approaching that of the adult. The season of breeding, the length of larval period, the size of transformed frog place it with the green frog and bull frog. Neither of these species seemed to be asso-

ciated with it particularly although each was in the Lake of Bays region in numbers.

A. H. WRIGHT,
Ithaca, N. Y.

RATTLESNAKES ON CATALINA ISLAND.

Van Denburgh and Slevin (Proc. Calif. Acad. of Sci., 4th Ser., Vol. IV, pp. 138-139) state that the presence of rattlesnakes on Catalina Island off the coast of southern California was first recorded by Yarrow from a specimen taken there by Mr. Schumacher in 1876. One additional specimen only is recorded. In that so little is known of *Crotalus oregonus* on the island, the following notes may be of interest:

During July, 1906, while camped at Whites Landing, I killed a rattlesnake about two feet long. The specimen was not saved. I believe that several other specimens were killed during the summer. At that time rattlesnakes were considered fairly common over the greater part of the eastern slope of the island.

Mr. Murray L. Royar, who has just returned from a summer spent at Avalon, has donated to the Museum of Vertebrate Zoology a small specimen of *Crotalus oregonus* taken at Avalon on August 2, 1915. Mr. Royar reports that old-timers on Catalina Island say that there were no rattlesnakes on the island in early days. Later, when hay and other crops were introduced, rattlesnakes appeared. The reptiles were first seen around barns and near civilization and later took to the hills. He also states that even at the present time few are found far inland.

HAROLD C. BRYANT,
Berkeley, Calif.